AMENDMENTS TO THE CLAIMS

1. (twice amended) A method for providing a glass preform for use as a source for drawing an optical fiber, the method comprising the steps of:

collecting a plurality of first glass rods into a substantially contiguous bundle, wherein each of said first glass rods comprise a chemical composition and a substantially uniform shape, wherein said chemical composition of each of said first glass rods is chosen to provide one of two or more different refractive indices[[,]] and wherein said step of collecting further includes the step of combining said first glass rods to provide a predetermined target refractive index wherein a numerical average of said two or more refractive indices the refractive index of each of said first glass rods is substantially equal to said a predetermined target refractive index;

inserting said contiguous bundle into a glass tube, wherein said glass tube has an inside diameter chosen to contain said contiguous bundle, forming thereby a preform assembly; and

heating said preform assembly to a glass fusion temperature and causing said preform assembly to fuse to form a solid glass preform such that said chemical composition of each of said first glass rods is maintained in a location proximate or about coincident with a position of each said glass rods within said contiguous bundle.

- 2. (previously canceled)
- 3. (previously amended) The method of claim 1, wherein said step of heating further comprises heating said contiguous bundle such that fusion begins at one end progresses along a length of said preform assembly.
- 4. (previously canceled)
- 5. (previously amended) The method of claim 1, wherein said first glass rods are randomly distributed throughout said contiguous bundle.

- 6. (previously amended) The method of claim 1, wherein said first glass rods are evenly and non-randomly placed throughout said contiguous bundle.
- 7. (previously canceled)
- 8. (twice amended) The method of claim 1, further including wherein the step of inserting said contiguous bundle further includes the steps of removing one or more groups of contiguous first glass rods from said preform assembly, and the step of replacing said one or more groups with an equivalent number of groups of contiguous second glass rods, wherein said second glass rods comprise comprising a physical or chemical property whose value is different than said a value of said same physical or chemical property of said first glass rods, wherein said one or more groups are disposed about a center axis of said contiguous bundle or about said center point and between first and second radii about said center point.
- 9. (twice amended) The method of claim 8, wherein the step steps of removing and replacing further include the step of partially displacing said one or more first groups from said preform assembly groups.
- 10. (previously canceled)
- 11. (twice amended) The method of claim 9, wherein the step of partially displacing is performed by inserting a stepped template into one end of said glass tube and against one end of each of said first glass rods, said stepped template having one or more steps or one or more removable plugs, said steps or plugs acting to partially displace said one or more groups of first glass rods.
- 12. (currently amended) The method of claim 11, wherein said <u>one or more removable</u> plugs have a desired shape and size and are located in a desired position in a cross section of said preform assembly.

- 13. (twice amended) The method of claim 12, wherein said one or more plugs of said stepped template are removable, and wherein said step of removing and replacing further includes the step of removing one or more of said removable plugs such that are removed to provide longitudinal spaces equivalent to each said one or more plug shapes remain within said stepped template and within said contiguous bundle adjacent to said stepped template, said spaces in said stepped template and said contiguous bundle acting as a guide to allow entry, and to act as guides for inserting and fully displacing each of said one or more groups of said first glass rods with said one or more equivalent groups of said second glass rods.
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